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EXAMINER

OLSON, ERIC

ART UNIT

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1623

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06/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Detailed Action

This action is in response to Applicant's amendment and request for consideration submitted May 18, 2009 After Final.

Applicant's amendments to the specification submitted May 18, 2009, have been fully considered and entered into the record, as they memory correct obvious typographical errors in the specification as originally filed. Specifically, the substitution of □,□ for α,α in several chemical names, and the definition of group R4 as H instead of OH, where the chemical structures recited in the original specification clearly include the chemical structures as amended.

Applicant's request or reconsideration submitted May 18, 2009, has been fully considered and not found to be persuasive to remove the rejection as discussed in the previous office action and herein below:

Firstly, regarding the status of claim 25, Applicant claims that it has been changed to (previously presented) rather than (withdrawn). However, no amendments to the claims or to their status indicators can actually be found in Applicant's response. Therefore the objection is maintained.

Applicant furthermore traverses the rejection of claims 1, 2, 4, 25, 26, and 28 under 35 USC 103(a) for being obvious over Papageorgiou et al. WO00/42057, of record in the final office action of December 16, 2008. Applicant argues that Papageorgiou et al. requires that the substituents be labile protecting groups, and does

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not include embodiments wherein the O- and N- substituents are non-labile. As discussed in the previous office action, the test for whether the claimed invention is obvious is whether it would be obvious to make, for whatever reason, a compound that literally falls within the limits of the instant claims. Whether one of ordinary skill in the art intends the functions groups attached to the saccharide (e.g. trifluoromethyl, cyanoethyl, pentenyl, etc.) to be removable protecting groups or permanent functional groups does not affect the objective fact of whether Papageorgiou et al. renders obvious chemical structures falling within the limits of the instant claims. As the claims stand, they encompass a wide variety of functional groups, some of which, for example methylthio, naphthylmethyl, nitrobenzyl, or nitrobenzoyl, fall within the limits of the claimed functional groups. One of ordinary skill in the art would have been motivated to use these protecting groups in the overall synthetic schemes and intermediaries disclosed by Papageorgiou et al., thereby arriving at compounds falling within the instant claims. This additional limitation, that the functional groups not be readily removable, is not found within the claim limitations, and contradicts the broad limitations falling within claim 1, which include substituted alkyl, alkenyl, alkynyl, heteroalkynyl groups encompassing, for example, allyl, benzyl, nitrobenzyl, cyanoethyl, nitrophenyl, and other functional groups readily considered to be labile under the right conditions. Furthermore the specific functional groups recited in the dependent claims, for example benzyl, chlorobenzyl, nitrobenzyl, pentenyl, and naphthylmethyl in claim 26, are labile under hydrogenation conditions. Thus there is no requirement in the claims as written that the functional groups be non-labile.

Applicant further argues that there would be no motivation for one of ordinary skill in the art to modify the intermediates in the prior art, for example compound 4 on p. 14 and compound 23 on p. 24, to arrive at compounds that meet the requirements of the claimed invention, because such compounds would not fulfill the need for having orthogonal removable protecting groups. However, as stated above, the reference teaches a variety of different subsets of orthogonal protecting groups. Based on the teaching of the reference, one of ordinary skill in the art could have made a number of different synthetic intermediates having an arrangement of **orthogonal protecting groups** based on those recited in the reference. Many of these arrangements would also fall within the limits of the instant claims. Where the prior art teaches a finite, predictable number of solutions to a problem, for example several recitations of protecting groups (pp. 5-7 of Papageorgiou et al.) one of ordinary skill in the art would have been motivated to make and evaluate various solutions according to the prior art.

Therefore the rejection is deemed proper and maintained.

As regards the rejection of claims 1, 2, 4, and 25-27 for claiming the same invention as claims 14-18 of copending application 11/813737, Applicant asks that this rejection be held in abeyance. As this rejection is not the sole remaining rejection in the application, it is maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC S. OLSON whose telephone number is (571)272-9051. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on (571)272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric S Olson/
Examiner, Art Unit 1623
6/1/2009

/Shaojia Anna Jiang/
Supervisory Patent Examiner, Art Unit 1623